

REMARKS

The Final Office Action issued October 10, 2002 has been reviewed and the comments of the U.S. Patent and Trademark Office have been considered. Claims 1 and 8 have been amended. Claims 2, 5, 7-24 have been withdrawn from consideration pursuant to a non-final restriction and election requirement. Accordingly, Applicants request reconsideration of the elected claims 1-13, and further request reconsideration of all pending claims.

Claims 1, 3, 4 and 6 stand rejected under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 5,209,408 to Reiter.

Applicants submit that the claims are allowable because each of the independent claims 1 and 8 recites that a portion of the surface passage is “aligned,” (i.e., lies on the same line) with a seat surface. Applicants have assigned a meaning to the term “aligned” that is consistent with the plain and ordinary meaning of the term. Contrary to the Applicants’ assigned meaning, the Examiner has elected to assign a meaning to the term “aligned” (i.e., parallel lines) that is inconsistent with Applicants’ assigned meaning. In order to advance prosecution, however, Applicants have amended the independent claims to more particularly and distinctly claim the invention by defining the meaning of the term within the claim itself. Hence, the claims are patentable over Reiter because the surfaces of each passage through outlet opening 14 of Reiter are not aligned on the same line as the seat surface of the valve seat 13 of Reiter.

Applicants assert that the Amendment does not introduce a new issue or new matter because the definition (which were stated in the Amendment dated July 15, 2002, and which has been added to the claims) has already been considered by the Examiner in parsing out a different meaning to the term “aligned.” That is, the Examiner has necessarily considered Applicants’ assigned meaning in selecting a different meaning for the term. Accordingly no new issue or new matter has been presented that would require a further search or consideration. Thus, entry of amendment and the allowance of claims are requested.

Further, Applicants have also amended the claims to more particularly and distinctly claim the Applicants’ invention by reciting that the portion and the seat are contiguous to each other on a common plane. Support for the amendment to the claims is provided by the originally filed specification at, for example, pages 5-6, and illustrated in Figs. 3A, 3B, 6 and 7.

In sharp contrast, Reiter shows a valve seat body 5 with outlet openings 14. Each of the outlet openings 14 extends through the valve seat 13 to form a passage through the valve seat 13 of Reiter. Reiter shows the surface of each passage as spaced away from the surface of the valve seat 13 instead of being contiguous to the seat on a common plane, as recited in claim 1. Accordingly, claim 1 is patentable over Reiter for at least this reason because Reiter fails to teach or suggest features of the claimed invention as a whole.

Claims 3, 4 and 6 depend ultimately from allowable claim 1, and are also allowable at least for these reasons, as well as for reciting other features.

Figure 1 has been objected for failing to include a legend designating --Prior Art--. Applicants respectfully submit that this Figure is not prior art because the Figure shows a CNG fuel injector described by a copending application. Accordingly, the objection to the drawing has been overcome and should be withdrawn.

Further, it is noted that the Office Action concluded that the restriction requirement is proper without providing viable evidence, as required by MPEP § 806.05(g), of a materially different apparatus that does not require “a seat disposed at the fuel outlet.” Applicants respectfully reiterate that claim 8 recites the particulars of a fuel injector that generates the claimed spray pattern in a combustion chamber of an internal combustion engine, and therefore the example of a “paint sprayer” (as asserted by the Restriction Requirement dated August 17, 2001) could not be a viable example. Applicants respectfully request that the Office Action either provides a viable example of a materially different apparatus or withdraws the restriction requirement as required by MPEP § 806.05(g). In the absence of a viable example by the Office Action, Applicants respectfully request rejoinder of claims 8-12.

Applicants respectfully request entry of the Amendment because the Amendment places the application in condition for allowance. Claims 1 and 8 have been amended to clarify an issue previously considered by the Examiner. Applicants respectfully reiterate that this Amendment has not introduced any new matter or raises any new issue that would require further consideration or search by the Examiner, and would place the application in condition for allowance. Accordingly, Applicants respectfully request entry of the Amendment and prompt allowance of the application.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully request the entry, reconsideration and reexamination of this application and allowance of the pending claims 1-24. Applicants respectfully invite the Examiner to contact the undersigned at (202) 739-5203 if there are any outstanding issues that can be resolved via a telephone conference.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached pages are captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

EXCEPT for issue fees payable under 37 C.F.R. §1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. §1.136(a)(3).

Respectfully submitted,

Date: 10 January 2003

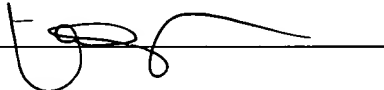
MORGAN, LEWIS & BOCKIUS LLP

1111 M Street N.W.,

Washington, D.C. 20004

202.739.3000

Customer No. 009629


Khoi Q. Ta
Reg. No. 47,300

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IN THE CLAIMS:

Claims 1 and 8 have been amended as follows:

1. (Twice Amended) A fuel injector having a fuel inlet, a fuel outlet, and a fuel passageway extending from the fuel inlet to the fuel outlet along a longitudinal axis, the fuel injector comprising:
 - a body;
 - a needle slidingly disposed within the body between a first position and a second position; and
 - a seat disposed at the fuel outlet, the seat including:
 - a seat surface contiguous to a portion of the needle in the first position to form a seal between the fuel passageway and the fuel outlet, the seat surface being spaced from the portion of the needle in a second position of the needle to permit fuel flow through the fuel outlet, the seat surface being oblique to the longitudinal axis; and
 - a plurality of passages, each of the plurality of passages having a passage surface extending along a central axis that defines an angle of inclination relative to the longitudinal axis, a portion of the passage surface aligned on the same line with and contiguous to the surface of the seat on a common plane.

8. (Thrice Amended) A spray pattern of fuel generated by a fuel injector comprising:
 - a fuel injector including:
 - a fuel inlet, a fuel outlet, a fuel passageway extending from the fuel inlet to the fuel outlet along a longitudinal axis, a body, a needle slidingly disposed within the body between a first position and a second position, a seat surface contiguous to a portion of the needle in the first position to form a seal between the fuel passageway and the fuel outlet, the seat surface being spaced from the portion of the needle in a second position of the needle to permit fuel flow through the fuel outlet that generates a spray pattern, the seat surface being oblique to the longitudinal axis, a plurality of passages, each of the plurality of passages having a passage surface extending along a central axis that defines an angle of inclination relative to the longitudinal axis, a portion of the passage surface aligned on the same line with and

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contiguous to the surface of the seat on a common plane; and

the spray pattern including:

at least two portions of fuel, the fuel being combustible in a combustion chamber of an internal combustion engine, wherein a first portion includes a fan shape spray of fuel and the second portion includes at least one plume of fuel adjacent the fan shape spray.
